



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,777	10/25/2003	Zheng James Peng	FGT 1829 PA	2776
28549	7590	03/02/2006	EXAMINER	
KEVIN G. MIERZWA ARTZ & ARTZ, P.C. 28333 TELEGRAPH ROAD, SUITE 250 SOUTHFIELD, MI 48034				ROSENBERG, LAURA B
			ART UNIT	PAPER NUMBER
				3616

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/605,777	PENG, ZHENG JAMES
	Examiner Laura B. Rosenberg	Art Unit 3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 19 is/are allowed.
- 6) Claim(s) 1-5,7-15,17,18 and 20 is/are rejected.
- 7) Claim(s) 6 and 16 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 October 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: ____.

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:  
“side impact air bag assembly 32” should either be changed to --side impact air bag assembly 30-- or --side air bag 32-- (paragraph 0018, line 2);  
“even” should be deleted from the phrase “even event” (paragraph 0018, line 8);  
“an” should be changed to --and-- (paragraph 0019, line 1);  
“pain” should be changed to --pane-- (throughout specification).  
Appropriate correction is required.

### ***Claim Objections***

2. Claims 1, 5, 10, and 15 are objected to because of the following informalities:  
“a automotive” should be changed to --an automotive-- (claims 1 and 10, line 8);  
“pain” should be changed to --pane-- (throughout claims 5 and 15).  
Appropriate correction is required.
3. Claim 13 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically, the contents of claim 13 are redundant to claim 12, from which it depends.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 5, 15, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 5 and 15 recite the limitation "said glass assembly" in line 2; claim 20 recites the limitation "said window opening portion" in lines 5-6. There is insufficient antecedent basis for these limitations in the claims.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5, 8, 10-15, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Jourdaine et al. (5,979,932), as supported by Sakakida et al. (6,378,896). Jourdaine et al. disclose an automotive side impact assembly comprising:

- Door assembly (best seen in the figure) including a door body portion (including #1, 2) and a window opening portion (defined by window frame #3, 4) meeting to form a beltline (for example, at flanged upper portion of #1, 2, where #3-6 meet with #1, 2)

- Window assembly (including #5, 6, 15-18, 20) positioned within the window opening portion and extending into the door body portion when in a window closed condition (best seen in the figure)
- Automotive seat assembly positioned adjacent the door assembly (seat assembly not shown; since air-bag is intended to deploy between vehicle occupant and side door/window assembly, one can assume that the occupant is located on a vehicle seat positioned adjacent the door assembly)
- Side-impact air-bag assembly (including #7-11) having a deployed condition (not shown) in which a side air-bag (including #9) is deployed during a collision between the door assembly and the automotive seat (column 2, specifically lines 42-53)
- Laminate assembly (for example, including #18) in communication with the window assembly (part of the window assembly) and having an upper laminate portion (for example, portion extending above beltline) extending above the beltline into the window opening portion when the window assembly is in the window closed condition (best seen in the figure) and a lower laminate portion (for example, portion extending below beltline) extending below the beltline into the door body portion when the window assembly is in the window closed position (best seen in the figure)
- Laminate assembly providing structural rigidity to the window assembly such that the side air-bag is supported during deployment (for example, window assembly provides sufficient bearing surface for the air-bag when air-bag presses against the window assembly; best described in columns 1-3)

- Laminate assembly is applied on an “exterior surface” of the window assembly (for example, laminate portion #18 is located on “exterior surface” of glass sheet #17)
- Laminate assembly is applied on an “interior surface” of the window assembly (for example, laminate portion #18 is located on “interior surface” of glass sheet #16)
- Laminate assembly comprises first laminate portion having a first laminate strength and second laminate portion having a second laminate strength (column 1, lines 43-50 and column 2, lines 60-67 describe the different laminate portions of the laminate assembly of intermediate layer #18; each portion would have an associated laminate strength)
- Window assembly comprises a first window pane section (for example, including #16) and a second window pane section (for example, including #17), the laminate assembly (including #18) positioned between the first and second window pane sections (best seen in figure)
- Side-impact air-bag assembly is positioned within the door body portion (for example, within cavity #7; best seen in figure)
- Impact zone (roughly between head/shoulder of passenger and window/door assembly) is defined between a shoulder of a passenger and the window assembly, the side air-bag being deployed partially between the impact zone and the shoulder (column 2, lines 50-53), and the laminate assembly providing structural rigidity to the window assembly in the region of the impact zone (laminate assembly provides structural rigidity along entire window assembly)

The concept of a door-mounted side-air bag deployed between an occupant situated on a vehicle seat is well known in the art, and further supported by Sakakida et al., as best seen in figures 2, 3 and described in columns 6-7.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jourdaine et al. (5,979,932), as supported by Sakakida et al. (6,378,896). Although Jourdaine et al. do not specifically disclose that the laminate assembly is translucent, it would have been obvious to one skilled in the art at the time that the invention was made to make the laminate assembly translucent since the laminate assembly extends into the side viewing area of the vehicle occupant, and, for safety reasons, the vehicle occupant should be able to see through the laminate assembly.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jourdaine et al. (5,979,932), as supported by and in view of Sakakida et al. (6,378,896). Jourdaine et al. do not specifically disclose the location of a passenger within an automotive seat in relation to the beltline.

Sakakida et al. teach an automotive side impact assembly comprising:

- Door assembly (including #2) including a door body portion (including #10) and a window opening portion (including area around window glass #11) meeting to form a beltline (including #6)
- Window assembly (including #11) positioned within the window opening portion and extending into the door body portion when in a window closed condition (can be seen in figure 5)
- Automotive seat assembly (including #3) positioned adjacent the door assembly (can be seen in figures 2, 3)
- Side-impact air-bag assembly (including #40) having a deployed condition (for example, as seen in dotted lines in figures 2, 3) in which a side air-bag (including #50) is deployed during a collision between the door assembly and the automotive seat (can be seen in figures 2, 3)
- The automotive seat assembly is positioned relative to the window assembly such that a shoulder of a passenger (for example, passenger seen in figures 2, 3) positioned within the automotive seat assembly rises above the beltline (best seen in figure 3)

It would have been obvious to one skilled in the art at the time that the invention was made to modify the automotive seat assembly of Jourdaine et al. such that it is positioned relative to the window assembly such that a shoulder of a passenger positioned within the automotive seat assembly rises above the beltline as claimed in view of the teachings of Sakakida et al. so as to properly position the assembly for optimal cushioning and protection of the passenger in the event of a side collision.

***Allowable Subject Matter***

11. Claims 6 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
12. Claim 19 is allowed.
13. Claim 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
14. The following is a statement of reasons for the indication of allowable subject matter: The allowable subject matter in claims 6 and 16 is the specific configuration of the first and second laminate portions with respect to the beltline and window sections, in combination with other features of claims 6 and 16 and the claims from which they depend. While Jourdaine et al. disclose the intermediate laminate including two adhesive layers surrounding a polymer layer, it is unclear what the specific orientation of these layers would be with respect to the beltline and window sections.

The allowable subject matter in claim 19 is the specific steps of identifying an impact zone on an automotive window assembly caused by a deployed side impact air bag assembly by determining the position of a passenger's shoulder above a beltline of the automotive window assembly, in combination with other features of claim 19. While the prior art discloses an impact zone on an automotive window assembly, a beltline, and deployment of a side impact air bag in between a passenger's shoulder and the impact zone, the prior art does not specifically disclose the applicant's process for identifying the impact zone.

***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vollmer discloses an automotive door and laminate window assembly in which a safety device breaks the window when a collision occurs to create a better surface for the impact of an occupant's head against the window.

Niwa et al. disclose a laminate window configuration that can be used in a side door of a vehicle, the laminate being more transparent depending upon the particular materials used.

De Paoli discloses a laminate automotive side window assembly with increased strength in its lower marginal part.

Hashimoto et al. disclose a laminate automotive side window assembly that provides additional strength for the purposes of crime prevention.

Omori and Suzuki disclose an automotive door and laminate window assembly.

Weston et al. disclose an automotive air bag that deploys from a side door in the window area, the air bag designed specifically to provide ample support for an occupant without need for additional structural support from the door or window assemblies.

Koyama et al. disclose a front air bag and a windshield assembly that includes a buffer layer to provide additional structural support when an occupant impacts the front air bag and the air bag contacts the windshield.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura B. Rosenberg whose telephone number is (571) 272-6674. The examiner can normally be reached on Monday-Friday 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Laura B. Rosenberg*  
Laura B Rosenberg  
Patent Examiner  
Art Unit 3616

LBR

*Paul N. Dickson* 2/21/06  
PAUL N. DICKSON  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600